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| IN THE UNITED STATES DISTRICT COURT    |             |    |                           |
|--|-------------|----|---------------------------|
| FOR THE DISTRICT OF CONNECTIOUS        |             |    |                           |
|  |             | -x |                           |
| IN RE : GENERAL DYNAMICS               |             | :  | CML No. 1                 |
| ************************************** |             | -x | •                         |
| SAMMIE L. GRAY, et al.,                |             | :  |                           |
| ,                                      | Plaintiffs, | :  | Civil Action              |
| -versus-                               |             | :  | No. H-75-327              |
| GENERAL DYNAMICS CORPORATION, et al.,  |             | :  | NO. 11-75-527             |
|  | Defendants. | :  | ,                         |
| ***                                    |             | -x |                           |
| HENRIETTA C. BROWN, et al.,            |             | :  | ٠.                        |
|  | Plaintiffs, | :  |                           |
| -versus-                               |             | :  | Civil Action No. H-76-434 |
| UNITED STATES OF AMERICA, et al.,      |             | :  |                           |
|  | Defendants. | :  |                           |
|  |             | -x |                           |

Deposition of HE Deposition of HE Department of Justice, Todd Building, 550 11th

SANCERS GALE & RUSSELL Cortifical Standarde Acquirters PRODUCED JM - 83

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Street, Washington, D. C., before Roy F. Brown, a Registered Professional Reporter and Notary Public within and for the State of Connecticut, on Monday, May 21, 1979, commencing at 10:03 o'clock in the forencon.

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### Appearances:

KREINDLER & KREINDLER, ESQS.
Attorneys for the Plaintiffs,
99 Park Avenue
New York, New York 10016

BY: STANLEY J. LEVY, ESQ., of Counsel

McNAMARA & HOWD, ESQS.

Attorneys for the Defendant General Dynamics
Corporation
102 Oak Street
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BY: HADLEIGH H. HOWD, ESQ., of Counsel

-and-

FOLEY, HOAG & ELIOT, ESQS.

10 Post Office Square.
Boston, Massachusetts 02109

BY: PETER B. ELLIS, ESQ.,

of Counsel

SAMDERS, GALE & RUSSELL Controlled Standaryge Reporters PRODUCED JM - 83 HENRY GEORGE MURAD, called as a witness, having been first duly sworn by the Notary Public (Roy F. Brown), was examined and testified as follows:

MR. SCHWARTZ: The usual stipulations, just so there is no misunderstanding, unless someone objects: Roy is competent to swear in the witness and to take the testimony, and that all objections as to the notice are waived and all objections except as to form are reserved until time of trial.

Off the record.

(Discussion off the record)

## DIRECT EXAMINATION

## BY MR. JELLEY:

- Q Why don't you give us your full name and address, Mr. Murad.
- A Henry George Murad, 9822 Bridle Ridge Court, Vienna, Virginia.
  - Q By whom are you employed, Mr. Murad?
  - A By the United States Air Force.
  - Q What position do you hold with the United States

#### Air Force?

- A I'm a general engineer.
- Q How long have you been employed by the Air Force?
- A About three months.
- Q By whom were you employed prior to your employment

# by the Air Force?

- A By the Navy.
- Q How long were you employed by the Navy?
- A Almost fourteen years.
- Q Does that mean that you began in about 1965 with the Navy?
  - A. That's right, May of '65,
  - Q What is your educational background, Mr. Murad?
  - A Well, I have a Master's Degree in Inorganic

## Chemistry.

- Q From?
- A The University of Maryland, in 1957.
- Q And your Bachelor's Degree?
- A That was in chemistry, from Utica College of Syracuse University.
  - Q Were you in the service at all?
  - A Six months, yes, in the Army.

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So that during this period from November '66 to September '69, did you have anything to do with asbestos at all?

- A Very little in that period of time.
- Q To the extent that you did have something to do with asbestos, what connection did you have something to do with it in?
- A Only in that there are some filters in water treatment -- certain water treatment systems that are composed, partially, at least, of asbestos.
  - R This is water treatment systems for --
  - A Propulsion plants.
  - Q -- cooling and things?
  - A Right.
  - Q Not drinking water?
  - A No.
- Q Where did you go after you left the Naval Ship Engineering Center in the chemistry and toxicology section in September of 1969?
- A Well, I continued to work for the Ship Engineering Center, and I worked for another unit.
  - Q What was that unit?

- A That was called the coatings unit.
- Representation of the Haval Ship Engineering Center?
- A Another three years, approximately, from '69 -- September '69 to October '72.
- Nas the coatings unit another section or unit that was concerned with preparation of specifications and standards of one sort or another?
  - A Yes.
- Q Did you have a title or position in the coatings unit?
  - A \_ Materials engineer.
- Q I suppose that the coatings unit had a boss of some sort? Did it?
  - A Yes.
  - Q What was his title?
  - A His title was supervisory engineer, I believe.
- Q Who was that during the time that you were with the coatings unit?
  - A It was Mr. Ed Morganstearn.
- Q Did you report directly to Mr. Morganstearn, or was there some intermediate level between you and Mr.

SANDERS, GALE & RUSSELL Certified Stendinger her rierget involved with the extremely high temperatures in the fire rooms, some of which went up to a hundred forty, a hundred fifty degrees, Fahrenheit. It was almost -- it was very hot from time to time.

Q All of these subjects that we have been talking about, that were under your cognizance when you were with the coatings division -- did they all involve the need to either revise existing standards and specifications or create new ones, things of that sort?

A They didn't all involve that, no. They included that as appropriate, yes.

What I am trying to find out, Mr. Murad, is this:

Were you in charge of trying to develop materials
to solve problems, or were you merely, in a sense, making
decisions on standards and specifications and doing the
paperwork?

A Well, a little of both. Really, the way you phrase the question, it is impossible to answer.

Q I take it, maybe, then, from what you have just said to me, that, if a problem arose, such as the one with the jet blast deflectors that you were telling us about, you had concern in one way or another to find a material that

would involve a problem; is that correct?

- A That's true.
- Q How did you go about finding materials to solve problems?
- A That specific case, we tasked Puget Sound Naval Snippard to survey the field and determine whether there was any kind of existing material that would satisfy the requirements that we set for it. We set them for it based on information we received from carrier-type desk and the Naval Ship Engineering Center, interface with the aircraft carrier type desk, as it was called at that time, and we worked with NAVAIR, Naval Air Engineering Center, or Naval Air Systems Command. We also, by the way, worked with Naval Air Engineering Center, but that's another part of it.

We then tested those materials that were -- or we saw to it that those materials that were selected were tested on a small scale, a pilot scale, and a full scale. We worked with a variety of different people at different places to do it. I don't know if you want to take the time here to break it down.

That's how we worked that particular one.

Q Is that, in general, the way you solved problems

#### of materials?

- A That's one way to do it.
- Q Tell me another way.

A Another way is to get information from industry and work with them to -- and with the existing engineering and testing organizations -- to come up with materials; for example, the American Society For Testing & Materials.

A good deal of it has to do with the funds that are available to do the job. In the case of the jet blast deflector, we were allocated funds; we were funded by people at Maval Ship Systems Command. In the case of some others, we were not given funds, so we tried the best we could, depending on -- obviously, if you have money to pay people to do a job, the job gets done better --

- Q Faster --
- A -- than if you have to do it with no funds.

MR. NOWINSKI: Would this be a good time to take a break?

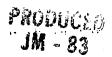
MR. JELLEY: Sure.

MR. NOWINSKI: About five minutes.

(A recess was taken from 11:09 a.m. until

11:19 a.m.;

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- Q Was the problem the same?

  MR. JELLEY: That is withdrawn. That is not a good question.
- At the time that we are talking about, from the fall of 1969 to the fall of '72, when you were with the coatings division, you, of course, had a number of military standards that called for asbestos for various insulation purposes; isn't that true?
- A The only -- as I recall, there was just the one standard.
- @ Maybe I am using my language incorrectly. Is it military specifications? Is that the terminology?
  - A There are specs and there are standards.
  - What is the difference?
- A Specification identifies a particular material.

  A standard gives procedures on how you use that material,
  how the material is applied.
- Q Specifications are these things with MIL spec numbers, and so on; is that correct?
  - A They have MIL spec numbers, yes.
  - All right, let me ask a different question, then.

    At the time that you were with the coatings

division, from the fall of 1969 to the fall of '72, you had a number of different military specifications for insulation used aboard ships that called for asbestos. Is that correct?

MR. NOWINSKI: Excuse me, Counsel. Wha do you mean, "called for asbestos"?

MR. JELLEY: That required the use of

A Here again, the specification identifies the characteristics. We used mainly performance specifications, called for the performance of a -- the performance characteristics of the material. That's what the specification does; it describes the performance that the material -- of that material.

asbestos.

Q So that the specifications, or most of the specifications that you were dealing with for insulation on ships, were performance specifications that required material that did particular things but didn't necessarily call for asbestos. Is that correct?

- A Didn't necessarily -- yes, that's right.
- Why, when you were trying to reduce the amount of asbestos aboard ships, didn't you just revise the military specifications for insulation so as to provide that asbestos